



FIG. 18A

pET22b(+) forward primer:

5'-CGG GAT CCG GGT TTG AAA GGA AAA CGT-3' (SEQ ID NO:11)

pET22b(+) reverse primer:

5'-CCC AAG CTT TCA GTG TCT TTT CTT CAT-3' (SEQ ID NO:12)

5	10	15	20	25	30	35	40	45
<u>ggt ttg</u>	<u>aaa gga</u>	<u>aaa cgt</u>	gga	gac	agt	gga	tca	cct gca acc tgg
50	55	60	65	70	75	80	85	90
aca	acg	aga	ggc	ttt	gtc	ttc	acc	cga cac agt caa acc aca gca
95	100	105	110	115	120	125	130	135
att	cct	tca	tgt	cca	gag	ggg	aca	gtg cca ctc tac agt ggg ttt
140	145	150	155	160	165	170	175	180
tct	ttt	ctt	ttt	gta	caa	gga	aat	caa cga gcc cac gga caa gac
185	190	195	200	205	210	215	220	225
ctt	gga	act	ctt	ggc	agc	tgc	ctg	cag cga ttt acc aca atg cca
230	235	240	245	250	255	260	265	270
ttc	tta	ttc	tgc	aat	gtc	aat	gat	gta tgt aat ttt gca tct cga
275	280	285	290	295	300	305	310	315
aat	gat	tat	tca	tac	tgg	ctg	tca	aca cca gct ctg atg cca atg
320	325	330	335	340	345	350	355	360
aac	atg	gct	ccc	att	act	ggc	aga	gcc ctt gag cct tat ata agc
365	370	375	380	385	390	395	400	405
aga	tgc	act	gtt	tgt	gaa	ggc	cct	gag gcc ata gcc gtt cac
410	415	420	425	430	435	440	445	450
agc	caa	acc	act	gac	att	cct	cca	tgt cct cac ggc tgg att tct
455	460	465	470	475	480	485	490	495
ctc	tgg	aaa	gga	ttt	tca	ttc	atc	atg ttc aca agt gca ggt tct
500	505	510	515	520	525	530	535	540
gag	ggc	acc	ggg	caa	gca	ctg	gcc	tcc cct ggc tcc tgc ctg gaa
545	550	555	560	565	570	575	580	585
gaa	ttc	cga	gcc	agc	cca	ttt	cta	gaa tgt cat gga aga gga acg
590	595	600	605	610	615	620	625	630
tgc	aac	tac	tat	tca	aat	tcc	tac	agt ttc tgg ctg gct tca tta
635	640	645	650	655	660	665	670	675
aac	cca	gaa	aga	atg	ttc	aga	aag	cct att cca tca act gtg aaa
680	685	690	695	700	705	710	715	720
gct	ggg	gaa	tta	gaa	aaa	ata	ata	agt cgc tgt cag gtg tgc <u>atg</u>
725	730	735						
<u>aag</u>	<u>aaa</u>	<u>aga</u>	<u>cac</u>	<u>tga</u>				

(SEQ ID NO:9)

pET22b- α 3(IV) NC1 = nucleotides 1 through 732

Tumstatin 333 = nucleotides 1 through 372

Tumstatin 334 = nucleotide 373 through 732



FIG. 18B

*
5 10 15 20 25 30 35 40 45
GLK GKR GDS GSP ATW TTR GFV FTR HSQ TTA IPS CPE GTV PLY SGF

50 55 60 65 70 75 80 85 90
SFL FVQ GNQ RAH GQD LGT LGS CLQ RFT TMP FLF CNV NDV CNF ASR

*+
95 100 105 110 115 120 125 130 135
NDY SYW LST PAL MPM NMA PIT GRA LEP YIS RCT VCE GPA IAI AVH

140 145 150 155 160 165 170 175 180
SQT TDI PPC PHG WIS LWK GFS FIM FTS AGS EGT GQA LAS PGS CLE

185 190 195 200 205 210 215 220 225
EFR ASP FLE CHG RGT CNY YSN SYS FWL ASL NPE RMF RKP IPS TVK

+
230 235 240 244
AGE LEK IIS RCQ VCM KKR H (SEQ ID NO:10)

pET22b α 3(IV) NC1 = residues 1 through 244

Tumstatin 333 = residues 1 through 124

Tumstatin 334 = residues 125 through 244



FIG. 42

T1 GP-A
GLKGKRGDSGSPATWTTTRGFVFTRHSQTTAIPSCPEGTVPLYS

T2 T3
GFSFLFVQGNQRAHGQDLGTLGSC LQRFTTMPFLFCNVNDVCN T4

T3 T5
T4 T6
FASRNDYSYWLSTPALMPMNMAPITGRALEPYISRCTVCEGPA

T6 GP-B
IAIAVHSQTTDIPPCPHGWISLWKGF SFIMFTSAGSEGTGQAL
ASPGSCLEEFRASPFLECHGRGTCNYYSNSYSFWLASLNPERM
FRKPIPSTVKAGELEKIISRCQVCMKKRH